863 Report of Test Results

Functional Group ID=RT

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Report of Test Results Transaction Set (863) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit the results of tests performed to satisfy a specified product or process requirement. This includes, but is not limited to, test data such as inspection data, certification data, and statistical process control measurements.

Notes:

This Transaction Set is used for reporting invidual sample test results for Lead and Copper, Chemicals, Radionuclides, Water Quality, Total Coliform and Microbiological samples.

Heading:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1		
Must Use	020	BTR	Beginning Segment for Test Results	M	1		
Not Used	040	REF	Reference Identification	O	12		
Not Used	050	DTM	Date/Time Reference	O	10		
Not Used	060	PID	Product/Item Description	O	200		
Not Used	065	TMD	Test Method	O	1		
Not Used	070	MEA	Measurements	O	20		
			LOOP ID - N1			>1	
	080	N1	Name	O	1		
Not Used	090	N2	Additional Name Information	O	2		
Not Used	100	N3	Address Information	O	2		
Not Used	110	N4	Geographic Location	O	1		
	120	REF	Reference Identification	O	12		
			LOOP ID - PER			>1	
	130	PER	Administrative Communications Contact	O	1		
Not Used	140	REF	Reference Identification	O	>1		n1

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - LIN			>1	
	010	LIN	Item Identification	O	1		
	020	PID	Product/Item Description	O	1000		
Not Used	025	TMD	Test Method	O	1		
Not Used	030	MEA	Measurements	O	20		
Not Used	031	PSD	Physical Sample Description	O	>1		
Not Used	032	SPS	Sampling Parameters for Summary Statistics	O	>1		
	034	QTY	Quantity	O	10		
	040	DTM	Date/Time Reference	O	10		

	042	NTE	Note/Special Instruction	O	1	
	043	NTE	Note/Special Instruction	O	1	
	045	NTE	Note/Special Instruction	O	1	
	050	REF	Reference Identification	O	1000	
			LOOP ID - N1			10
	051	N1	Name	O	1	
Not Used	052	N2	Additional Name Information	O	2	
Not Used	053	N3	Address Information	O	2	
Not Used	054	N4	Geographic Location	O	1	
	055	REF	Reference Identification	O	10	
	056	PER	Administrative Communications Contact	O	3	
Not Used	057	QTY	Quantity	O	10	
			LOOP ID - CID			>1
	060	CID	Characteristic/Class ID	O	1	
Not Used	070	UIT	Unit Detail	O	1	
Not Used	090	PSD	Physical Sample Description	O	>1	
Not Used	100	SPS	Sampling Parameters for Summary Statistics	O	>1	
Not Used	120	DTM	Date/Time Reference	O	10	
Not Used	130	REF	Reference Identification	O	10	
			LOOP ID - MEA			>1
	150	MEA	Measurements	O	1	
	160	DTM	Date/Time Reference	O	10	
	170	REF	Reference Identification	O	10	
			LOOP ID - LM			>1
	172	LM	Code Source Information	O	1	
Must Use	174	LQ	Industry Code	M	>1	
			LOOP ID - STA			>1
Not Used	180	STA	Statistics	O	1	
Not Used	190	DTM	Date/Time Reference	O	10	
Not Used	195	REF	Reference Identification	O	10	
			LOOP ID - LM			>1
Not Used	197	LM	Code Source Information	O	1	
Not Used	200	LQ	Industry Code	M	>1	
			LOOP ID - TMD			100
	201	TMD	Test Method	O	1	
Not Used	202	MEA	Measurements	O	>1	
Not Used	203	DTM	Date/Time Reference	O	10	
Not Used	204	REF	Reference Identification	O	10	
			LOOP ID - TSP			>1
Not Used	210	TSP	Test Period or Interval	O	1	
Not Used	220	MEA	Measurements	O	>1	
Not Used	230	DTM	Date/Time Reference	O	10	
Not Used	240	REF	Reference Identification	O	10	
			LOOP ID - LM			>1
Not Used	242	LM	Code Source Information	O	1	
Not Used	244	LQ	Industry Code	M	>1	

Summary:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
	005	CTT	Transaction Totals	O	1		
Must Use	010	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. The REF segment is to be used to send identification numbers associated with party referenced in the PER.

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number.
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set '863' X12.41 Report of Test Results. This implementation of the 863 Report of Test Results is used for the submission of drinking water test results from laboratories to State agencies. Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**3/3**
>>	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**

Segment: **BTR** **Beginning Segment for Test Results**
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of a test results transaction set
Syntax Notes:
Semantic Notes:
1 If BTR01 equals "01", "02", "03", "04", "05", "18" or "19", then BTR06 is required to identify the original test report reference number transmitted.
2 BTR02 is the date that this transaction set was created by the sending party.
3 BTR03 is the time that this transaction set was created by the sending party.
4 BTR05 specifies test results report reference number created by the sending party.
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**BTR01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set Code identifying purpose of the transaction set. '00' Original '15' Resubmission Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
>>	**BTR02**	**373**	**Date** Date (YYMMDD) Creation date for drinking water test results report. YYMMDD	**M**	**DT**	**6/6**
X	**BTR03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	**O**	**TM**	**4/8**
>>	**BTR04**	**755**	**Report Type Code** Code indicating the title or contents of a document, report or supporting item Code identifying the type of report 'RT' Report of test results and Analysis report 'W2' Summary (Safe Drinking Water Report) Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
>>	**BTR05**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Number assigned by laboratory for the report.	**O**	**AN**	**1/30**
	BTR06	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Required when report is a resubmission to provide original report number.	**O**	**AN**	**1/30**
X	**BTR07**	**786**	**Security Level Code** Code indicating the level of confidentiality assigned by the sender to the information following Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**

Segment: **N1** **Name**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.
Notes: Two occurrences of the N1 loop are required at this location in the transaction set. One is required to identify the testing lab submitting the report. The second to identify the State/agency where the report is being sent.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual 'R5' State 'TL' Testing Lab Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	N102	**93**	**Name** Free-form name Name of the testing lab or State including agency.	**X**	**AN**	**1/35**
>>	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) Code identifying the source of the number in N104 '75' State ID number 'FN' EPA Laboratory Certification ID Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**1/2**
>>	**N104**	**67**	**Identification Code** Code identifying a party or other code Appropriate identification number	**X**	**AN**	**2/20**
X	**N105**	**706**	**Entity Relationship Code** Code describing entity relationship Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**N106**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**

Segment: **REF** **Reference Identification**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: This segment must be included in the N1 loop identifying the testing laboratory to convey the PIN when N101 equals 'TL'.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**REF01**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification '4A' A number that uniquely identifies a testing laboratory. The number is supplied by the state or the federal government.	**M**	**ID**	**2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN**	**1/80**
X	**REF04**	**C040**	**Reference Identifier** To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	**O**		
X	**C04001**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/3**
X	**C04002**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**M**	**AN**	**1/30**
X	**C04003**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04004**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**C04005**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04006**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**

Segment: **PER** **Administrative Communications Contact**
Position: 130
Loop: PER
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a person or office to whom administrative communications should be directed
Syntax Notes: **1** If either PER03 or PER04 is present, then the other is required.
2 If either PER05 or PER06 is present, then the other is required.
3 If either PER07 or PER08 is present, then the other is required.
Semantic Notes:
Comments:
Notes: This segment should be included in the N1 loop identifying the Testing Lab if an identification of the certifying party is required.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**PER01**	**366**	**Contact Function Code** Code identifying the major duty or responsibility of the person or group named 'CE' Certifier Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	PER02	**93**	**Name** Free-form name Name of certifying individual.	**O**	**AN**	**1/35**
X	**PER03**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER04**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER05**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER06**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER07**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER08**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER09**	**443**	**Contact Inquiry Reference** Additional reference number or description to clarify a contact number	**O**	**AN**	**1/20**

Segment: **LIN** **Item Identification**
Position: 010
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify basic item identification data
Syntax Notes:
1 If either LIN04 or LIN05 is present, then the other is required.
2 If either LIN06 or LIN07 is present, then the other is required.
3 If either LIN08 or LIN09 is present, then the other is required.
4 If either LIN10 or LIN11 is present, then the other is required.
5 If either LIN12 or LIN13 is present, then the other is required.
6 If either LIN14 or LIN15 is present, then the other is required.
7 If either LIN16 or LIN17 is present, then the other is required.
8 If either LIN18 or LIN19 is present, then the other is required.
9 If either LIN20 or LIN21 is present, then the other is required.
10 If either LIN22 or LIN23 is present, then the other is required.
11 If either LIN24 or LIN25 is present, then the other is required.
12 If either LIN26 or LIN27 is present, then the other is required.
13 If either LIN28 or LIN29 is present, then the other is required.
14 If either LIN30 or LIN31 is present, then the other is required.
Semantic Notes:
1 LIN01 is the line item identification
Comments:
1 See the Data Dictionary for a complete list of IDs.
2 LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., UPC No., ISBN No., Model No., or SKU.
Notes: Note: One LIN loop should be created for each sample being reported. Each LIN loop must start with the LIN segment. A transaction set can accommodate multiple sample reports.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**LIN01**	**350**	**Assigned Identification** Alphanumeric characters assigned for differentiation within a transaction set	**O**	**AN**	**1/20**
>>	**LIN02**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) 'TU' Report Type/Tested Material Identification Number	**M**	**ID**	**2/2**
>>	**LIN03**	**234**	**Product/Service ID** Identifying number for a product or service Sample Category Identification 'PB' Lead and Copper 'CH' Chemicals 'GE' General Samples 'RA' Radionuclides 'PP' Water Quality 'TC' Total Coliform 'MB' Microbiological	**M**	**AN**	**1/40**
>>	**LIN04**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) 'S4' Laboratory Sample Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
>>	**LIN05**	**234**	**Product/Service ID**	**X**	**AN**	**1/40**

			Identifying number for a product or service			
			Appropriate sample number as assigned by the lab. Used as an identification of the sample.			
	LIN06	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			'S5' State Sample Identification			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	LIN07	**234**	**Product/Service ID**	**X**	**AN**	**1/40**
			Identifying number for a product or service			
			Appropriate sample as assigned by the state. Used as an identification of the sample.			
	LIN08	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			'S6' Previous sample identification Note: Required when sample type in PID04 equals RP (Repeat) or RI (Replacement for invalid result).			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	LIN09	**234**	**Product/Service ID**	**X**	**AN**	**1/40**
			Identifying number for a product or service			
			Note: Appropriate sample number as assigned by the lab or the state. Used as an identification of the previous sample.			
	LIN10	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			'TU' Lab Composite Sample Number Note: Required when sample is part of a composite.			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	LIN11	**234**	**Product/Service ID**	**X**	**AN**	**1/40**
			Identifying number for a product or service			
			Note: Appropriate composite sample number as assigned by the lab or the state. Used as an identification of all samples in the composite.			
X	**LIN12**	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**LIN13**	**234**	**Product/Service ID**	**X**	**AN**	**1/40**
			Identifying number for a product or service			
X	**LIN14**	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**LIN15**	**234**	**Product/Service ID**	**X**	**AN**	**1/40**
			Identifying number for a product or service			
X	**LIN16**	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**LIN17**	**234**	**Product/Service ID**	**X**	**AN**	**1/40**
			Identifying number for a product or service			
X	**LIN18**	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in			

			Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**LIN19**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN20**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN21**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN22**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN23**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN24**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN25**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN26**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN27**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN28**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN29**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN30**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN31**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**

Segment: **PID** **Product/Item Description**
Position: 020
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1000
Purpose: To describe a product or process in coded or free-form format
Syntax Notes:
1 If PID04 is present, then PID03 is required.
2 At least one of PID04 or PID05 is required.
3 If PID07 is present, then PID03 is required.
4 If PID08 is present, then PID03 is required.
Semantic Notes:
1 Use PID03 to indicate the organization that publishes the code list being referred to.
2 PID04 should be used for industry-specific product description codes.
3 PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4 PID09 is used to identify the language being used in PID05.
Comments:
1 If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2 Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3 PID07 specifies the individual code list of the agency specified in PID03.
Notes: Note: For a Test Results report at least one iteration of PID is required for each sample to identify Sample Type and Compliance.

This Segement is REQUIRED

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**PID01**	**349**	**Item Description Type** Code indicating the format of a description Code indicating the format of a description. 'S' Structured Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**1/1**
>>	**PID02**	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process characteristic Code Values 'CO' Collection Method Code 'LC' Lead/Copper Sample Type 'RM' Results Method Code 'RR' Rejection Reason 'ST' Sample Type. Note: At least one ST (Sample Type) is required for each LIN loop. If sample is Lead/Copper one LC is also required. Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/3**
>>	**PID03**	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values 'EP' Environmental Protection Agency Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	PID04	**751**	**Product Description Code** A code from an industry code list which provides specific data about a product characteristic A code from the industry code list	**X**	**AN**	**1/12**

			(See Appendix B) Note: At least one code value from the Sample Type code list is required for each loop.			
X	**PID05**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN**	**1/80**
X	**PID06**	**752**	**Surface/Layer/Position Code** Code indicating the product surface, layer or position that is being described Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**PID07**	**822**	**Source Subqualifier** A reference that indicates the table or text maintained by the Source Qualifier	**O**	**AN**	**1/15**
	PID08	**1073**	**Yes/No Condition or Response Code** Code indicating a Yes or No condition or response Compliance indication 'Y' For compliance 'N' Not for compliance Note: This element is required when PID02 equals 'ST' (Sample Type) to indicate if the sample was submitted for compliance purposes. Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/1**
X	**PID09**	**819**	**Language Code** Code designating the language used in text, from a standard code list maintained by the International Standards Organization (ISO 639)	**O**	**ID**	**2/3**

Segment: **QTY** **Quantity**
Position: 034
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify quantity information
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity 'SW' Sample Amount '99' Quantity Used for Testing Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
>>	**QTY02**	**380**	**Quantity** Numeric value of quantity Volume of the sample	**M**	**R**	**1/15**
	QTY03	**C001**	**Composite Unit of Measure** To identify a composite unit of measure(See Figures Appendix for examples of use.)	**O**		
>>	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken 'ML' milliliter Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00102**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00103**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00104**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00105**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00106**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00107**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00108**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00109**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00110**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in	**O**	**ID**	**2/2**

			which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**C00111**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00112**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00113**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00114**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00115**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**

Segment: **DTM** **Date/Time Reference**
Position: 040
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM06 is required.
2 If either DTM06 or DTM07 is present, then the other is required.
Semantic Notes:
Comments:
Notes: One DTM segment per LIN loop is required to identify collection date.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time '906' Collection Date '050' Lab Receipt Date '090' Report Start Date '091' Report End Date '406' Composite Date Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**3/3**
X	**DTM02**	**373**	**Date** Date (YYMMDD)	**X**	**DT**	**6/6**
	DTM03	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) Expressed as HHMM	**X**	**TM**	**4/8**
X	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**DTM05**	**624**	**Century** The first two characters in the designation of the year (CCYY)	**O**	**N0**	**2/2**
	DTM06	**1250**	**Date Time Period Format Qualifier** Code indicating the date format, time format, or date and time format 'D8' Date expressed CCYYMMDD Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
	DTM07	**1251**	**Date Time Period** Expression of a date, a time, or range of dates, times or dates and times Expressed as CCYYMMDD	**X**	**AN**	**1/35**

Segment: **NTE** **Note/Special Instruction**
Position: 042
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To transmit information in a free-form format, if necessary, for comment or special instruction
Syntax Notes:
Semantic Notes:
Comments: **1** The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**NTE01**	**363**	**Note Reference Code** Code identifying the functional area or purpose for which the note applies Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**3/3**
>>	**NTE02**	**352**	**Description** A free-form description to clarify the related data elements and their content	**M**	**AN**	**1/80**

Segment: **NTE** **Note/Special Instruction**
Position: 043
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To transmit information in a free-form format, if necessary, for comment or special instruction
Syntax Notes:
Semantic Notes:
Comments: **1** The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**NTE01**	**363**	**Note Reference Code** Code identifying the functional area or purpose for which the note applies Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**3/3**
>>	**NTE02**	**352**	**Description** A free-form description to clarify the related data elements and their content	**M**	**AN**	**1/80**

Segment: **NTE** **Note/Special Instruction**
Position: 045
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To transmit information in a free-form format, if necessary, for comment or special instruction
Syntax Notes:
Semantic Notes:
Comments: **1** The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**NTE01**	**363**	**Note Reference Code** Code identifying the functional area or purpose for which the note applies Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**3/3**
>>	**NTE02**	**352**	**Description** A free-form description to clarify the related data elements and their content	**M**	**AN**	**1/80**

Segment: **REF** **Reference Identification**
Position: 050
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1000
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: At least one occurrence of the REF segment is required in the LIN loop if the sample is part of a RAD composite.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**REF01**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification 'SJ' Composite Quarter/ Set Number Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier See Appendix I	**X**	**AN**	**1/30**
X	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN**	**1/80**
X	**REF04**	**C040**	**Reference Identifier** To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	**O**		
X	**C04001**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04002**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**C04003**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04004**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**C04005**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04006**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**

Segment: **N1** **Name**
Position: 051
Loop: N1
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.
Notes: At least two occurrences of the N1 loop are required at this location in the transaction set. One is required to identify the water system. The second should identify the water facility. A third iteration is allowed to identify the sampling point. Water system and water facility require use of the identification number. Sampling location may be designated either by identification number or name.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual 'FA' Water Facility 'W9' Sampling Location 'WS' Water System Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	N102	**93**	**Name** Free-form name The name of the water system, water facility or sampling location	**X**	**AN**	**1/35**
>>	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) Code identifying the number in N104 'FA' Facility Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**1/2**
>>	**N104**	**67**	**Identification Code** Code identifying a party or other code Appropriate identification number	**X**	**AN**	**2/20**
X	**N105**	**706**	**Entity Relationship Code** Code describing entity relationship Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**N106**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**

Segment: **REF** **Reference Identification**
Position: 055
Loop: N1
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: At least one occurrence of the REF is required in the LIN/N1 loop if PID04 equals RP Repeat sample.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**REF01**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification '7D' Tester Identification '7E' Collector Identification Code '7F' Repeat Location '7G' Data Quality Reject Reason '7H' EPA Test Type Purpose Code Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier See Appendix B	**X**	**AN**	**1/30**
X	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN**	**1/80**
X	**REF04**	**C040**	**Reference Identifier** To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	**O**		
X	**C04001**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/3**
X	**C04002**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**M**	**AN**	**1/30**
X	**C04003**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04004**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**C04005**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04006**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**

Segment: **PER** **Administrative Communications Contact**
Position: 056
Loop: N1
Level: Detail
Usage: Optional
Max Use: 3
Purpose: To identify a person or office to whom administrative communications should be directed
Syntax Notes: **1** If either PER03 or PER04 is present, then the other is required.
2 If either PER05 or PER06 is present, then the other is required.
3 If either PER07 or PER08 is present, then the other is required.
Semantic Notes:
Comments:
Notes: This segment should be included in the N1 loop identifying the name of the sample collector if this information is required.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**PER01**	**366**	**Contact Function Code** Code identifying the major duty or responsibility of the person or group named 'SL' Collector Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	PER02	**93**	**Name** Free-form name Name of the sample collector.	**O**	**AN**	**1/35**
X	**PER03**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER04**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER05**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER06**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER07**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER08**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER09**	**443**	**Contact Inquiry Reference** Additional reference number or description to clarify a contact number	**O**	**AN**	**1/20**

Segment: **CID** **Characteristic/Class ID**
Position: 060
Loop: CID
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify the general class or specific characteristic upon which test results are being reported or are to be taken
Syntax Notes:
1 At least one of CID01 CID02 CID04 or CID05 is required.
2 If either CID03 or CID04 is present, then the other is required.
3 If CID06 is present, then both CID03 and CID04 are required.
4 If CID07 is present, then at least one of CID04 or CID05 is required.
Semantic Notes:
Comments:
1 CID06 specifies the individual code list of the agency specified in CID03.
2 CID07 refers to whether or not the characteristic identified in CID04 or CID05 or both is affected by the product change. If it is affected, the value is "Y". A value of "N" is used when it is known that it will not be affected. Any other value indicates it is indeterminate.
Notes: At least one iteration of the CID loop is required for each sample processed. There will be a separate CID loop for each analyte tested and reported on. A transaction set can contain multiple CID loops.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**CID01**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**1/3**
X	**CID02**	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process characteristic Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
>>	**CID03**	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values 'EP' EPA Analyte Code List 'CA' Chemical Abstract System Code List Note: Choose either the EPA or CAS Code List Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
>>	**CID04**	**751**	**Product Description Code** A code from an industry code list which provides specific data about a product characteristic Appropriate code value from the above list	**X**	**AN**	**1/12**
	CID05	**352**	**Description** A free-form description to clarify the related data elements and their content Analyte name	**X**	**AN**	**1/80**
X	**CID06**	**822**	**Source Subqualifier** A reference that indicates the table or text maintained by the Source Qualifier	**O**	**AN**	**1/15**
	CID07	**1073**	**Yes/No Condition or Response Code** Code indicating a Yes or No condition or response Use to indicate Microbe presence or absence 'Y' Microbes present 'N' Microbes not present Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/1**

Segment: **MEA** **Measurements**
Position: 150
Loop: MEA
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
Notes: All test results should be reported here. A separate CID loop should be used for each test method reported.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes		
MEA01	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies 'TR' Test Results 'CO' Concentration 'EN' Environmental conditions 'CT' Counts Note: 'EN' are the data values to be reported reflect the environmental conditions surrounding a situation including but limited to test environments. Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
MEA02	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies 'ADM' Dye Manufacturing Units 'AGI' Aggressive Index 'CRF' Free Chlorine Residual 'CRT' Total Chlorine Residual 'CTT' Contact Time 'FLV' Flavor Threshold 'LAI' Langlier Index 'BR' Luminance (brightness) 'PX' Purity 'COL' Color Units 'ABO' Absorbance 'OTH' Odor Threshold 'FR' Flow Rate 'PHA' pH Measurement 'TUR' Turbidity 'OBT' Observed Temperature (Sample Water Temperature) 'FLV' Flavor Threshold Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
MEA03	**739**	**Measurement Value**	**X**	**R**	**1/20**

The value of the measurement

MEA04 **C001** **Composite Unit of Measure** **X**

To identify a composite unit of measure(See Figures Appendix for examples of use.)

'UN' Unit
'ML' Milliliter
'LT' Liter
'ML::100' 100Milliliters
'ML::400' 400Milliliters
'GA' Gallon
'GA::100' 100 Gallons
'GA::400' 400 Gallons
'CE' Degrees Celsius
'FA' Degrees Fahnenheit
'M1' Milligrams per liter
'59' Parts per million
'MC:::LT:-1' Micrograms per liter
'61' Parts per Billion
'R8::.001' Millirems
'R8::.001:LT:-1::YR:-1' Millirems per liter per year
'4D::.000000000001:LT:-1' Picocuries per liter
'GR::.000000001:LT:-1' Nanograms per liter
'MR::.000000001' Nanometers
'GE' Pounds per Gallon
'87' Pounds per Cubic foot
'ZP::1000000:LT:-1 Millions of fibers per liter
'NR:::CM:-1' Microhos per centimeter

C00101 **355** **Unit or Basis for Measurement Code** **X** **ID** **2/2**

Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

'UN' Unit
'ML' Milliliter
'LT' Liter
'GA' Gallon
'CE' Degrees Celsius
'FA' Degrees Fahrenheit
'FK' Fibers
'M1' Milligrams per Liter
'59' Parts per Million
'MC' Micrograms per Liter
'61' Parts per Billion
'R8' Millirems
'4D' Picocuries per Liter
'GR' Nanograms per liter
'MR' Nanometers
'GE' Pounds per Gallon
'87' Pounds per Cubic Foot
'ZP' Million of Fibers per liter.....
'NR' Microhos per Centimeter.....
'FK' Fibers

Refer to 003061 Data Element Dictionary for acceptable code values.

C00102 **1018** **Exponent** **O** **R** **1/15**

Power to which a unit is raised

C00103 **649** **Multiplier** **O** **R** **1/10**

			Value to be used as a multiplier to obtain a new value 100 400 1000000 .001 .000000000001 .000000001			
	C00104	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken 'LT' Liter 'CM' Centimeter Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
	C00105	**1018**	**Exponent** Power to which a unit is raised '-1'	**O**	**R**	**1/15**
	C00106	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
	C00107	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken 'YR' Per Year Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
	C00108	**1018**	**Exponent** Power to which a unit is raised '-1'	**O**	**R**	**1/15**
	C00109	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
	C00110	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
	C00111	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
	C00112	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
	C00113	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
	C00114	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
	C00115	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
	MEA05	**740**	**Range Minimum** The value specifying the minimum of the measurement range Minimum regulatory or laboratory detection level. Note: To convey the minimum regulatory or minimum laboratory detection level when results are reported as less than these levels	**X**	**R**	**1/20**
X	**MEA06**	**741**	**Range Maximum** The value specifying the maximum of the measurement range	**X**	**R**	**1/20**

	MEA07	**935**	**Measurement Significance Code**	**O**	**ID**	**2/2**
			Code used to benchmark, qualify or further define a measurement value '07' Less than Note: Used to convey the fact that the test results were less than the level identified in MEA05. Refer to 003061 Data Element Dictionary for acceptable code values.			
	MEA08	**936**	**Measurement Attribute Code**	**X**	**ID**	**2/2**
			Code used to express an attribute response when a numeric measurement value cannot be determined '05' Undetectable '44' Not reportable/Not applicable Note: Used when the test results are either below detection level or regulatory reporting level. Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**MEA09**	**752**	**Surface/Layer/Position Code**	**O**	**ID**	**2/2**
			Code indicating the product surface, layer or position that is being described Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**MEA10**	**1373**	**Measurement Method or Device**	**O**	**ID**	**2/4**
			The method or device used to record the measurement Refer to 003061 Data Element Dictionary for acceptable code values.			

Segment: **DTM** **Date/Time Reference**
Position: 160
Loop: MEA
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM06 is required.
2 If either DTM06 or DTM07 is present, then the other is required.
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time '090' Analysis Start Date '091' Analysis Completion Date '621' State Notification Date Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**3/3**
X	**DTM02**	**373**	**Date** Date (YYMMDD)	**X**	**DT**	**6/6**
	DTM03	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) Expressed as HHMM	**X**	**TM**	**4/8**
X	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**DTM05**	**624**	**Century** The first two characters in the designation of the year (CCYY)	**O**	**N0**	**2/2**
	DTM06	**1250**	**Date Time Period Format Qualifier** Code indicating the date format, time format, or date and time format 'D8' Date expressed CCYYMMDD Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
	DTM07	**1251**	**Date Time Period** Expression of a date, a time, or range of dates, times or dates and times Expressed as CCYYMMDD	**X**	**AN**	**1/35**

Segment: **REF** **Reference Identification**
Position: 170
Loop: MEA
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: Note: If the LIN/CID/MEA loop is used at least one occurrences of the REF is required in the LIN/CID/MEA loop for data quality. A second iteration is required to convey rejection reason if data quality code equals 'R' .

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**REF01**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification 'D0' Data quality '7D' Tester Identification '7E' Collector Identification '7F' Repeat Location '7G' Data quality reject reason '7H' EPA test purpose code Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Data Quality 'A' Accepted 'R' Rejected 'P' Preliminary Data Quality reject reason 'RC' Requestor Cancelled 'IF' Instrument Failure 'LE' Lab Error 'OT' Other 'WR' Water System Rejected 'LC' Lab not Certified 'TNTC' Too Numerous to count 'CNFG' Confluent Growth 'TCNG' Turbid Culture No Gas Test Type 'C' Confirmed 'P' Presumptive	**X**	**AN**	**1/80**
X	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN**	**1/80**
X	**REF04**	**C040**	**Reference Identifier** To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	**O**		
X	**C04001**	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**

			Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**C04002**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**M**	**AN**	**1/30**
X	**C04003**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04004**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**C04005**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04006**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**

Segment: **LM** **Code Source Information**
Position: 172
Loop: LM
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To transmit standard code list identification information
Syntax Notes:
Semantic Notes:
Comments: **1** LM02 identifies the applicable industry code list source information.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**LM01**	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values 'EP' Environmental Protection Agency Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	LM02	**822**	**Source Subqualifier** A reference that indicates the table or text maintained by the Source Qualifier 'MCB1' Microbiological table of result 'SSTR' Sample Summary Table of Results	**O**	**AN**	**1/15**

Segment: **LQ** **Industry Code**
Position: 174
Loop: LM
Level: Detail
Usage: Mandatory
Max Use: >1
Purpose: Code to transmit standard industry codes
Syntax Notes: **1** If LQ01 is present, then LQ02 is required.
Semantic Notes:
Comments:
Notes: Note: This segment is mandatory if a LM segment is present.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**LQ01**	**1270**	**Code List Qualifier Code** Code identifying a specific industry code list Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	LQ02	**1271**	**Industry Code** Code indicating a code from a specific industry code list 'COLONIES' Colonies 'TUBES' Tubes 'MPN' Most Portable Number 'FCU' Colony forming units 'PFU' Plaque forming units 'CYSTSO' Cysts, observed (Giardia Lamblia) 'OCYSTSO' Oocyst, observed (Cryptosporidium) 'CYSTSC' Cysts, calculated (Giardia Lamblia) 'OCYSTSC' Oocysts, calculated (Cryptosporidium) 'OBSVNS' Observations (for measuring other organism)	**X**	**AN**	**1/30**

Segment: **TMD** **Test Method**
Position: 201
Loop: TMD
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To describe the nature of the test performed
Syntax Notes: **1** If either TMD02 or TMD03 is present, then the other is required.
2 If TMD09 is present, then TMD02 is required.
Semantic Notes: **1** TMD07 is the date of the test method as assigned by the issuing organization.
2 TMD08 is the document revision number.
Comments: **1** TMD09 specifies the individual code list of the agency specified in TMD02.
Notes: Note: The TMD loop is used when an EPA defined analysis method applies to the test results reported.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
	TMD01	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process characteristic 'RM' Results Method Code Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/3**
	TMD02	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values 'EP' Environment Protection Agency Code List Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
	TMD03	**751**	**Product Description Code** A code from an industry code list which provides specific data about a product characteristic Approved code from code list	**X**	**AN**	**1/12**
X	**TMD04**	**937**	**Test Administration Method Code** Code specifying the method of administering the test Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**TMD05**	**938**	**Test Medium Code** Code specifying organism on which the test was performed Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**TMD06**	**352**	**Description** A free-form description to clarify the related data elements and their content	**O**	**AN**	**1/80**
X	**TMD07**	**373**	**Date** Date (YYMMDD)	**O**	**DT**	**6/6**
X	**TMD08**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**O**	**AN**	**1/30**
X	**TMD09**	**822**	**Source Subqualifier** A reference that indicates the table or text maintained by the Source Qualifier	**O**	**AN**	**1/15**

Segment: **CTT** **Transaction Totals**
Position: 005
Loop:
Level: Summary
Usage: Optional
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes: **1** If either CTT03 or CTT04 is present, then the other is required.
2 If either CTT05 or CTT06 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment is intended to provide hash totals to validate transaction completeness and correctness.
Notes: Note: One iteration of the CTT segment is required.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**CTT01**	**354**	**Number of Line Items** Total number of line items in the transaction set The number in CTT01 element is the total number of LIN segments in the TS.	**M**	**N0**	**1/6**
X	**CTT02**	**347**	**Hash Total** Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. Example: -.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. ------- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field.	**O**	**R**	**1/10**
X	**CTT03**	**81**	**Weight** Numeric value of weight	**X**	**R**	**1/10**
X	**CTT04**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**CTT05**	**183**	**Volume** Value of volumetric measure	**X**	**R**	**1/8**
X	**CTT06**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**CTT07**	**352**	**Description** A free-form description to clarify the related data elements and their content	**O**	**AN**	**1/80**

Segment: **SE** **Transaction Set Trailer**
Position: 010
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments	**M**	**N0**	**1/10**
>>	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**

863 Report of Test Results

Functional Group ID=RT

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Report of Test Results Transaction Set (863) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit the results of tests performed to satisfy a specified product or process requirement. This includes, but is not limited to, test data such as inspection data, certification data, and statistical process control measurements.

Notes:

Used for reporting summary sample test results for Lead and Copper, Chemicals, Radionuclides, Water Quality, Total Coliform and Microbiological samples.

Heading:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1		
Must Use	020	BTR	Beginning Segment for Test Results	M	1		
Not Used	040	REF	Reference Identification	O	12		
Not Used	050	DTM	Date/Time Reference	O	10		
Not Used	060	PID	Product/Item Description	O	200		
Not Used	065	TMD	Test Method	O	1		
Not Used	070	MEA	Measurements	O	20		
			LOOP ID - N1			>1	
	080	N1	Name	O	1		
Not Used	090	N2	Additional Name Information	O	2		
Not Used	100	N3	Address Information	O	2		
Not Used	110	N4	Geographic Location	O	1		
	120	REF	Reference Identification	O	12		
			LOOP ID - PER			>1	
	130	PER	Administrative Communications Contact	O	1		
Not Used	140	REF	Reference Identification	O	>1		n1

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - LIN			>1	
	010	LIN	Item Identification	O	1		
Not Used	020	PID	Product/Item Description	O	1000		
Not Used	025	TMD	Test Method	O	1		
Not Used	030	MEA	Measurements	O	20		
Not Used	031	PSD	Physical Sample Description	O	>1		
Not Used	032	SPS	Sampling Parameters for Summary Statistics	O	>1		
Not Used	034	QTY	Quantity	O	10		
Must Use	040	DTM	Date/Time Reference	M	10		

	045	NTE	Note/Special Instruction	O	1	
Not Used	050	REF	Reference Identification	O	1000	
			LOOP ID - N1			10
	051	N1	Name	O	1	
Not Used	052	N2	Additional Name Information	O	2	
Not Used	053	N3	Address Information	O	2	
Not Used	054	N4	Geographic Location	O	1	
Not Used	055	REF	Reference Identification	O	10	
Not Used	056	PER	Administrative Communications Contact	O	3	
Not Used	057	QTY	Quantity	O	10	
			LOOP ID - CID			>1
Must Use	060	CID	Characteristic/Class ID	M	1	
Not Used	070	UIT	Unit Detail	O	1	
Not Used	090	PSD	Physical Sample Description	O	>1	
Not Used	100	SPS	Sampling Parameters for Summary Statistics	O	>1	
Not Used	120	DTM	Date/Time Reference	O	10	
Not Used	130	REF	Reference Identification	O	10	
			LOOP ID - MEA			>1
	150	MEA	Measurements	O	1	
Not Used	160	DTM	Date/Time Reference	O	10	
Not Used	170	REF	Reference Identification	O	10	
			LOOP ID - LM			>1
	172	LM	Code Source Information	O	1	
Must Use	174	LQ	Industry Code	M	>1	
			LOOP ID - STA			>1
Not Used	180	STA	Statistics	O	1	
Not Used	190	DTM	Date/Time Reference	O	10	
Not Used	195	REF	Reference Identification	O	10	
			LOOP ID - LM			>1
Not Used	197	LM	Code Source Information	O	1	
Not Used	200	LQ	Industry Code	M	>1	
			LOOP ID - TMD			100
	201	TMD	Test Method	O	1	
Not Used	202	MEA	Measurements	O	>1	
Not Used	203	DTM	Date/Time Reference	O	10	
Not Used	204	REF	Reference Identification	O	10	
			LOOP ID - TSP			>1
Not Used	210	TSP	Test Period or Interval	O	1	
Not Used	220	MEA	Measurements	O	>1	
Not Used	230	DTM	Date/Time Reference	O	10	
Not Used	240	REF	Reference Identification	O	10	
			LOOP ID - LM			>1
Not Used	242	LM	Code Source Information	O	1	
Not Used	244	LQ	Industry Code	M	>1	

Summary:

Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments

	005	CTT	Transaction Totals	O	1
Must Use	010	SE	Transaction Set Trailer	M	1

Transaction Set Notes

1. The REF segment is to be used to send identification numbers associated with party referenced in the PER.

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number.
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:
Notes: To indicate the start of a transaction set and to assign a control number

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set "863" X12.41 Report of Test Results. This implementation of the 863 Report of Test Results is used for the submission of drinking water test results from laboratories to State agencies. Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**3/3**
>>	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**

Segment: **BTR** **Beginning Segment for Test Results**
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of a test results transaction set
Syntax Notes:
Semantic Notes:
1 If BTR01 equals "01", "02", "03", "04", "05", "18" or "19", then BTR06 is required to identify the original test report reference number transmitted.
2 BTR02 is the date that this transaction set was created by the sending party.
3 BTR03 is the time that this transaction set was created by the sending party.
4 BTR05 specifies test results report reference number created by the sending party.
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**BTR01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set '00' Original '15' Resubmission	**M**	**ID**	**2/2**
>>	**BTR02**	**373**	**Date** Date (YYMMDD) Creation date for drinking water test results. YYMMDD	**M**	**DT**	**6/6**
X	**BTR03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	**O**	**TM**	**4/8**
>>	**BTR04**	**755**	**Report Type Code** Code indicating the title or contents of a document, report or supporting item Code identifying the type of report. 'W2' Summary of Safe Drinking Water Report Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
>>	**BTR05**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Number assigned by laboratory for the report.	**O**	**AN**	**1/30**
	BTR06	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Required when report is a resubmission to provide original report number	**O**	**AN**	**1/30**
X	**BTR07**	**786**	**Security Level Code** Code indicating the level of confidentiality assigned by the sender to the information following Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**

Segment: **N1** **Name**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.
Notes: Note: Two occurences of the N1 loop are required at this location in the transaction set. One is required to identify the testing lab submitting the report. The second to identify the State/agency where the report is being sent.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual 'R5' State 'TL' Testing Lab Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	N102	**93**	**Name** Free-form name Name of the testing lab or State including agency	**X**	**AN**	**1/35**
>>	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) Code identifying the source of the number in N104 '75' State ID Number 'FN' EPA Laboratory Certification ID Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**1/2**
>>	**N104**	**67**	**Identification Code** Code identifying a party or other code Appropriate identification number	**X**	**AN**	**2/20**
X	**N105**	**706**	**Entity Relationship Code** Code describing entity relationship Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**N106**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**

Segment: **REF** **Reference Identification**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: This segment must be included in the N1 loop identifying the testing laboratory to convey the PIN when N101 equals 'TL'.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**REF01**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification '4A' A number that uniquely identifies a testing laboratory. The number is supplied by the state or the federal government. Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN**	**1/80**
X	**REF04**	**C040**	**Reference Identifier** To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	**O**		
X	**C04001**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/3**
X	**C04002**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**M**	**AN**	**1/30**
X	**C04003**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04004**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
X	**C04005**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
X	**C04006**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**

Segment: **PER** **Administrative Communications Contact**
Position: 130
Loop: PER
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a person or office to whom administrative communications should be directed
Syntax Notes: **1** If either PER03 or PER04 is present, then the other is required.
2 If either PER05 or PER06 is present, then the other is required.
3 If either PER07 or PER08 is present, then the other is required.
Semantic Notes:
Comments:
Notes: Note: This segment should be included in the N1 loop identifying the Testing Lab if an identification of the certifying party is required.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**PER01**	**366**	**Contact Function Code** Code identifying the major duty or responsibility of the person or group named 'CE' Certifier Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	PER02	**93**	**Name** Free-form name Name of certifying individual.	**O**	**AN**	**1/35**
X	**PER03**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER04**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER05**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER06**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER07**	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**PER08**	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
X	**PER09**	**443**	**Contact Inquiry Reference** Additional reference number or description to clarify a contact number	**O**	**AN**	**1/20**

Segment: **LIN** **Item Identification**
Position: 010
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify basic item identification data
Syntax Notes:
1 If either LIN04 or LIN05 is present, then the other is required.
2 If either LIN06 or LIN07 is present, then the other is required.
3 If either LIN08 or LIN09 is present, then the other is required.
4 If either LIN10 or LIN11 is present, then the other is required.
5 If either LIN12 or LIN13 is present, then the other is required.
6 If either LIN14 or LIN15 is present, then the other is required.
7 If either LIN16 or LIN17 is present, then the other is required.
8 If either LIN18 or LIN19 is present, then the other is required.
9 If either LIN20 or LIN21 is present, then the other is required.
10 If either LIN22 or LIN23 is present, then the other is required.
11 If either LIN24 or LIN25 is present, then the other is required.
12 If either LIN26 or LIN27 is present, then the other is required.
13 If either LIN28 or LIN29 is present, then the other is required.
14 If either LIN30 or LIN31 is present, then the other is required.
Semantic Notes:
1 LIN01 is the line item identification
Comments:
1 See the Data Dictionary for a complete list of IDs.
2 LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., UPC No., ISBN No., Model No., or SKU.
Notes: Note: One LIN loop should be created for each sample being reported. Each LIN loop must start with the LIN segment. A transaction set can accommodate multiple sample reports.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**LIN01**	**350**	**Assigned Identification** Alphanumeric characters assigned for differentiation within a transaction set	**O**	**AN**	**1/20**
>>	**LIN02**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) 'TU' Tested material identification number. Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
>>	**LIN03**	**234**	**Product/Service ID** Identifying number for a product or service Sample Category Identification 'PB' Lead and Copper 'CH' Chemicals 'XX' Cancel 'GE' General Samples 'RA' Radionuclides 'PP' Water Quality 'TC' Total Coliform 'MB' Microbiological	**M**	**AN**	**1/40**
	LIN04	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) 'S4' Laboratory Sample Identification	**X**	**ID**	**2/2**

			'S5' State Sample Identification 'S6' Previous Sample Identification Refer to 003061 Data Element Dictionary for acceptable code values.			
	LIN05	**234**	**Product/Service ID** Identifying number for a product or service Appropriate sample number as assigned by the laboratory or the state. Used as an identification of the sample.	**X**	**AN**	**1/40**
	LIN06	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) 'S6' Previous Sample Identification Note: Required when sample type in PID04 equals RP Repeat. Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
	LIN07	**234**	**Product/Service ID** Identifying number for a product or service Note: Appropriate sample number as assigned by the laboratory or the state. Used as an identification of the previous sample.	**X**	**AN**	**1/40**
X	**LIN08**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN09**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN10**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN11**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN12**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN13**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN14**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN15**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN16**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN17**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN18**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN19**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN20**	**235**	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**

			Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.			
X	**LIN21**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN22**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN23**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN24**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN25**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN26**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN27**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN28**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN29**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**
X	**LIN30**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**LIN31**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN**	**1/40**

Segment: **DTM** **Date/Time Reference**
Position: 040
Loop: LIN
Level: Detail
Usage: Mandatory
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM06 is required.
2 If either DTM06 or DTM07 is present, then the other is required.
Semantic Notes:
Comments:
Notes: Note: Two DTM Segments per LIN loop are required to identify report start date and report end date.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time '090' Report Start Date '091' Report End Date Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**3/3**
X	**DTM02**	**373**	**Date** Date (YYMMDD)	**X**	**DT**	**6/6**
X	**DTM03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	**X**	**TM**	**4/8**
X	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**DTM05**	**624**	**Century** The first two characters in the designation of the year (CCYY)	**O**	**N0**	**2/2**
	DTM06	**1250**	**Date Time Period Format Qualifier** Code indicating the date format, time format, or date and time format 'D8' Date expressed CCYYMMDD Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
	DTM07	**1251**	**Date Time Period** Expression of a date, a time, or range of dates, times or dates and times Expressed as CCYYMMDD	**X**	**AN**	**1/35**

Segment: **NTE** **Note/Special Instruction**
Position: 045
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To transmit information in a free-form format, if necessary, for comment or special instruction
Syntax Notes:
Semantic Notes:
Comments: **1** The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**NTE01**	**363**	**Note Reference Code** Code identifying the functional area or purpose for which the note applies Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**3/3**
>>	**NTE02**	**352**	**Description** A free-form description to clarify the related data elements and their content	**M**	**AN**	**1/80**

Segment: **N1** **Name**
Position: 051
Loop: N1
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.
Notes: Note: At least one occurrence of the N1 loop is required at this location in the transaction set to identify the water system.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual 'WS' Water System 'FA' Water Facility 'W9' Sampling Location Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	N102	**93**	**Name** Free-form name The name of the water system, water facility or sampling location.	**X**	**AN**	**1/35**
>>	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) Code identifying the number in N104 'FA' Facility 'FN' EPA Laboratory Certification Identification Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**1/2**
>>	**N104**	**67**	**Identification Code** Code identifying a party or other code Appropriate identification number.	**X**	**AN**	**2/20**
	N105	**706**	**Entity Relationship Code** Code describing entity relationship Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
	N106	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**

Segment: **CID** **Characteristic/Class ID**
Position: 060
Loop: CID
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify the general class or specific characteristic upon which test results are being reported or are to be taken
Syntax Notes:
1 At least one of CID01 CID02 CID04 or CID05 is required.
2 If either CID03 or CID04 is present, then the other is required.
3 If CID06 is present, then both CID03 and CID04 are required.
4 If CID07 is present, then at least one of CID04 or CID05 is required.
Semantic Notes:
Comments:
1 CID06 specifies the individual code list of the agency specified in CID03.
2 CID07 refers to whether or not the characteristic identified in CID04 or CID05 or both is affected by the product change. If it is affected, the value is "Y". A value of "N" is used when it is known that it will not be affected. Any other value indicates it is indeterminate.
Notes: At least one iteration of the CID loop is required for each sample summary report. There will be a separate CID loop for each analyte tested and reported on. A transaction set can contain multiple CID loop.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**CID01**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**1/3**
X	**CID02**	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process characteristic Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/3**
>>	**CID03**	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values 'EP' EPA Analyte Code List 'CA' Chemical Abstract System Code List Note: Choose either EPA or CAS Code List Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
>>	**CID04**	**751**	**Product Description Code** A code from an industry code list which provides specific data about a product characteristic Appropriate code value from above list.	**X**	**AN**	**1/12**
	CID05	**352**	**Description** A free-form description to clarify the related data elements and their content Analyte Name	**X**	**AN**	**1/80**
X	**CID06**	**822**	**Source Subqualifier** A reference that indicates the table or text maintained by the Source Qualifier	**O**	**AN**	**1/15**
X	**CID07**	**1073**	**Yes/No Condition or Response Code** Code indicating a Yes or No condition or response Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/1**

Segment: **MEA** **Measurements**
Position: 150
Loop: MEA
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
Notes: Note: All summary results should be reported here. A separate CID loop should be used for each test method.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes		
MEA01	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies 'TR' Test Results 'CT' Count Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
MEA02	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies 'ADM' Dye Manifacturing Units 'AGI' Aggressive Index 'CRF' Free Chlorine Residual 'CRT' Total Chlorine Residual 'CTT' Contact Time 'FLV' Flavor Threshold 'LAI' Langlier Index 'BR' Luminance (Brightness) 'PX' Purity 'COL' Color Units 'ABO' Absorbance 'OTH' Odor Threshold 'FR' Flow Rate 'pHA' pH Measurement 'TUR' Turbidity 'OBT' Observed Temperature (Sample Water Temperature) 'FLV' Flavor Threshold Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
MEA03	**739**	**Measurement Value** The value of the measurement	**X**	**R**	**1/20**
MEA04	**C001**	**Composite Unit of Measure** To identify a composite unit of measure(See Figures Appendix for examples of use.) 'UN' Unit	**X**		

			'CE' Degrees Celsius 'FA' Degrees Fahrenheit 'M1' Milligrams per liter '59' Parts per million 'MC:::LT:-1' Micrograms per liter '61' Parts per billion 'ZZ::.001' millirems 'ZZ::.001:LT:-1:YR:-1' Milliremsper liter per year '4D::.000000000001:LT:-1' Picocuries per liter 'GR::.000000001:LT:-1' Nanograms per liter 'MR::.000000001' Nanometers 'GE' Pounds per gallon '87' Pounds per cubic foot 'ZP::1000000:LT:-1' Millions of Fibers per liter 'NR:::CM:-1' Microhos per centimeter 'FK' Fibers 'R8' Radioactive Equivalent in Man			
X	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**C00102**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00103**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00104**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00105**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00106**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00107**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00108**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00109**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00110**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00111**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00112**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value	**O**	**R**	**1/10**
X	**C00113**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**C00114**	**1018**	**Exponent** Power to which a unit is raised	**O**	**R**	**1/15**
X	**C00115**	**649**	**Multiplier**	**O**	**R**	**1/10**

			Value to be used as a multiplier to obtain a new value			
X	**MEA05**	**740**	**Range Minimum** The value specifying the minimum of the measurement range	**X**	**R**	**1/20**
X	**MEA06**	**741**	**Range Maximum** The value specifying the maximum of the measurement range	**X**	**R**	**1/20**
X	**MEA07**	**935**	**Measurement Significance Code** Code used to benchmark, qualify or further define a measurement value Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**MEA08**	**936**	**Measurement Attribute Code** Code used to express an attribute response when a numeric measurement value cannot be determined Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**MEA09**	**752**	**Surface/Layer/Position Code** Code indicating the product surface, layer or position that is being described Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**MEA10**	**1373**	**Measurement Method or Device** The method or device used to record the measurement Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/4**

Segment: **LM** **Code Source Information**
Position: 172
Loop: LM
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To transmit standard code list identification information
Syntax Notes:
Semantic Notes:
Comments: **1** LM02 identifies the applicable industry code list source information.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**LM01**	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values 'EP' Environmental Protection Agency Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
	LM02	**822**	**Source Subqualifier** A reference that indicates the table or text maintained by the Source Qualifier 'MCB1' Microbiological Table of Results 'SSTR' Sample Summary Table of Results.	**O**	**AN**	**1/15**

Segment: **LQ** **Industry Code**
Position: 174
Loop: LM
Level: Detail
Usage: Mandatory
Max Use: >1
Purpose: Code to transmit standard industry codes
Syntax Notes: **1** If LQ01 is present, then LQ02 is required.
Semantic Notes:
Comments:
Notes: Note: This segment is mandatory if a LM segment is present.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
X	**LQ01**	**1270**	**Code List Qualifier Code** Code identifying a specific industry code list Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	LQ02	**1271**	**Industry Code** Code indicating a code from a specific industry code list Sample Summary Table Results (SSTR Table) Approved Values 'TO' Total samples collected 'RP' Repeat samples 'RT' Routine samples 'PO' Number of positive sample analytical results 'RJ' Rejected samples 'NE' Negative sample analytical results 'NF' Negative finished water samples 'NR' Negative raw water samples 'ND' Negative sample analytical results from distribution system samples. 'SR' Samples required 'RL' Replacement samples 'MR' Mean (average) result for period 'HR' High result for period 'LR' Low result for period 'CR' Chlorine Residual Taken 'CB' Chlorine Residual below 0.2mg/p 'RF' Required repeats per Federal regulations 'RS' Required repeats per State regulations 'CK' Check samples taken 'FV' Days in Federal violation period 'SV' Days in State violation period 'VI' Days of violation period 'RI' Replacement samples for invalid results 'SP' Special samples	**X**	**AN**	**1/30**

Segment: **TMD** **Test Method**
Position: 201
Loop: TMD
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To describe the nature of the test performed
Syntax Notes: **1** If either TMD02 or TMD03 is present, then the other is required.
2 If TMD09 is present, then TMD02 is required.
Semantic Notes: **1** TMD07 is the date of the test method as assigned by the issuing organization.
2 TMD08 is the document revision number.
Comments: **1** TMD09 specifies the individual code list of the agency specified in TMD02.
Notes: The TMD loop is used when an EPA defined results method applies to the test results reported.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
	TMD01	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process characteristic 'RM' Result Method Code Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/3**
	TMD02	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values 'EP' Environmental Protection Agency Code List Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
	TMD03	**751**	**Product Description Code** A code from an industry code list which provides specific data about a product characteristic Approved code from code list.	**X**	**AN**	**1/12**
X	**TMD04**	**937**	**Test Administration Method Code** Code specifying the method of administering the test Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**TMD05**	**938**	**Test Medium Code** Code specifying organism on which the test was performed Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**2/2**
X	**TMD06**	**352**	**Description** A free-form description to clarify the related data elements and their content	**O**	**AN**	**1/80**
X	**TMD07**	**373**	**Date** Date (YYMMDD)	**O**	**DT**	**6/6**
X	**TMD08**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**O**	**AN**	**1/30**
X	**TMD09**	**822**	**Source Subqualifier** A reference that indicates the table or text maintained by the Source Qualifier	**O**	**AN**	**1/15**

Segment: **CTT** **Transaction Totals**
Position: 005
Loop:
Level: Summary
Usage: Optional
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes: **1** If either CTT03 or CTT04 is present, then the other is required.
2 If either CTT05 or CTT06 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment is intended to provide hash totals to validate transaction completeness and correctness.
Notes: Note: One iteration of the CTT segment is required.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**CTT01**	**354**	**Number of Line Items** Total number of line items in the transaction set The number in CTT01 element is the total number of LIN segments in the TS.	**M**	**N0**	**1/6**
X	**CTT02**	**347**	**Hash Total** Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. Example: -.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. ------- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field.	**O**	**R**	**1/10**
X	**CTT03**	**81**	**Weight** Numeric value of weight	**X**	**R**	**1/10**
X	**CTT04**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**CTT05**	**183**	**Volume** Value of volumetric measure	**X**	**R**	**1/8**
X	**CTT06**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	**X**	**ID**	**2/2**
X	**CTT07**	**352**	**Description** A free-form description to clarify the related data elements and their content	**O**	**AN**	**1/80**

Segment: **SE** **Transaction Set Trailer**
Position: 010
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments	**M**	**N0**	**1/10**
>>	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**

997 Functional Acknowledgment

Functional Group ID=FA

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Functional Acknowledgment Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to define the control structures for a set of acknowledgments to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. This standard does not cover the semantic meaning of the information encoded in the transaction sets.

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1		n1
Must Use	020	AK1	Functional Group Response Header	M	1		n2
			LOOP ID - AK2			999999	
Must Use	030	AK2	Transaction Set Response Header	O	1		n3
			LOOP ID - AK3			999999	
Must Use	040	AK3	Data Segment Note	O	1		c1
Must Use	050	AK4	Data Element Note	O	99		
Must Use	060	AK5	Transaction Set Response Trailer	M	1		
Must Use	070	AK9	Functional Group Response Trailer	M	1		
Must Use	080	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. These acknowledgments shall not be acknowledged, thereby preventing an endless cycle of acknowledgments of acknowledgments.
The Functional Group Header Segment (GS) is used to start the envelope for the Functional Acknowledgment Transaction Sets. In preparing the functional group of acknowledgments, the application sender's code and the application receiver's code, taken from the functional group being acknowledged, are exchanged; therefore, one acknowledgment functional group responds to only those functional groups from one application receiver's code to one application sender's code.
There is only one Functional Acknowledgment Transaction Set per acknowledged functional group.

2. AK1 is used to respond to the functional group header and to start the acknowledgement for a functional group. There shall be one AK1 segment for the functional group that is being acknowledged.

3. AK2 is used to start the acknowledgement of a transaction set within the received functional group. The AK2 segments shall appear in the same order as the transaction sets in the functional group that has been received and is being acknowledged.

Transaction Set Comments

1. The data segments of this standard are used to report the results of the syntactical analysis of the functional groups of transaction sets; they report the extent to which the syntax complies with the standards for transaction sets and functional groups. They do not report on the semantic meaning of the transaction sets (for example, on the ability of the receiver to comply with the request of the sender).

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**3/3**
>>	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**

Segment: **AK1** **Functional Group Response Header**
Position: 020
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To start acknowledgment of a functional group
Syntax Notes:
Semantic Notes:
1 AK101 is the functional ID found in the GS segment (GS01) in the functional group being acknowledged.
2 AK102 is the functional group control number found in the GS segment in the functional group being acknowledged.
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**AK101**	**479**	**Functional Identifier Code** Code identifying a group of application related transaction sets Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**2/2**
>>	**AK102**	**28**	**Group Control Number** Assigned number originated and maintained by the sender	**M**	**N0**	**1/9**

Segment: **AK2** **Transaction Set Response Header**
Position: 030
Loop: AK2
Level:
Usage: Optional (Must Use)
Max Use: 1
Purpose: To start acknowledgment of a single transaction set
Syntax Notes:
Semantic Notes:
1 AK201 is the transaction set ID found in the ST segment (ST01) in the transaction set being acknowledged.
2 AK202 is the transaction set control number found in the ST segment in the transaction set being acknowledged.
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**AK201**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**3/3**
>>	**AK202**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**

Segment: **AK3** **Data Segment Note**
Position: 040
Loop: AK3
Level:
Usage: Optional (Must Use)
Max Use: 1
Purpose: To report errors in a data segment and identify the location of the data segment
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**AK301**	**721**	**Segment ID Code** Code defining the segment ID of the data segment in error (See Appendix A - Number 77)	**M**	**ID**	**2/3**
>>	**AK302**	**719**	**Segment Position in Transaction Set** The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1	**M**	**N0**	**1/6**
	AK303	**447**	**Loop Identifier Code** The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE	**O**	**AN**	**1/4**
	AK304	**720**	**Segment Syntax Error Code** Code indicating error found based on the syntax editing of a segment Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**

Segment: **AK4** **Data Element Note**
Position: 050
Loop: AK3
Level:
Usage: Optional (Must Use)
Max Use: 99
Purpose: To report errors in a data element and identify the location of the data element
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**AK401**	**C030**	**Position in Segment** Code indicating the relative position of a simple data element, or the relative position of a composite data structure combined with the relative position of the component data element within the composite data structure, in error; the count starts with 1 for the simple data element or composite data structure immediately following the segment ID	**M**		
>>	**C03001**	**722**	**Element Position in Segment** This is used to indicate the relative position of a simple data element, or the relative position of a composite data structure with the relative position of the component within the composite data structure, in error; in the data segment the count starts with 1 for the simple data element or composite data structure immediately following the segment ID	**M**	**N0**	**1/2**
	C03002	**1528**	**Component Data Element Position in Composite** To identify the component data element position within the composite that is in error	**O**	**N0**	**1/2**
	AK402	**725**	**Data Element Reference Number** Reference number used to locate the data element in the Data Element Dictionary	**O**	**N0**	**1/4**
>>	**AK403**	**723**	**Data Element Syntax Error Code** Code indicating the error found after syntax edits of a data element Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**1/3**
	AK404	**724**	**Copy of Bad Data Element** This is a copy of the data element in error	**O**	**AN**	**1/99**

Segment: **AK5** **Transaction Set Response Trailer**
Position: 060
Loop: AK2
Level:
Usage: Mandatory
Max Use: 1
Purpose: To acknowledge acceptance or rejection and report errors in a transaction set
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**AK501**	**717**	**Transaction Set Acknowledgment Code** Code indicating accept or reject condition based on the syntax editing of the transaction set Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**1/1**
	AK502	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK503	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK504	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK505	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK506	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**

Segment: **AK9** **Functional Group Response Trailer**
Position: 070
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To acknowledge acceptance or rejection of a functional group and report the number of included transaction sets from the original trailer, the accepted sets, and the received sets in this functional group
Syntax Notes:
Semantic Notes:
Comments: **1** If AK901 contains the value "A" or "E", then the transmitted functional group is accepted. If AK901 contains the value "R", then the transmitted group is rejected.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**AK901**	**715**	**Functional Group Acknowledge Code** Code indicating accept or reject condition based on the syntax editing of the functional group Refer to 003061 Data Element Dictionary for acceptable code values.	**M**	**ID**	**1/1**
>>	**AK902**	**97**	**Number of Transaction Sets Included** Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	**M**	**N0**	**1/6**
>>	**AK903**	**123**	**Number of Received Transaction Sets** Number of Transaction Sets received	**M**	**N0**	**1/6**
>>	**AK904**	**2**	**Number of Accepted Transaction Sets** Number of accepted Transaction Sets in a Functional Group	**M**	**N0**	**1/6**
	AK905	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK906	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK907	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK908	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**
	AK909	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003061 Data Element Dictionary for acceptable code values.	**O**	**ID**	**1/3**

Segment: **SE** **Transaction Set Trailer**
Position: 080
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments	**M**	**N0**	**1/10**
>>	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**